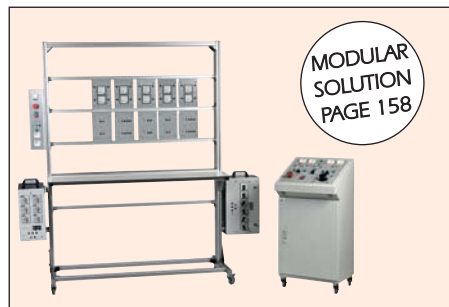
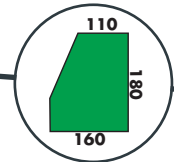


## ELECTROTECHNICAL BENCHES



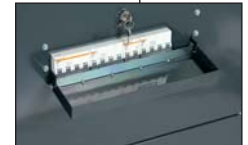
MODULAR  
SOLUTION  
PAGE 158



Electrotechnical bench  
BZO\*-D type

Range of stand-alone, complete and reliable bench. This equipment complies with laboratory international safety standards. It is made up of 1 or 2 electrical cabinets locked by key, connected by a foot rest. The top of dimensions 2000 x 750 mm in standard is stratified. All outputs are equipped with safety terminals 4mm (Supplies & Loads).

**LOCKABLE COVER  
FOR CIRCUIT BREAKERS**  
Circuit breakers are placed behind  
a lockable transparent cover  
Restricted access IP2X protection

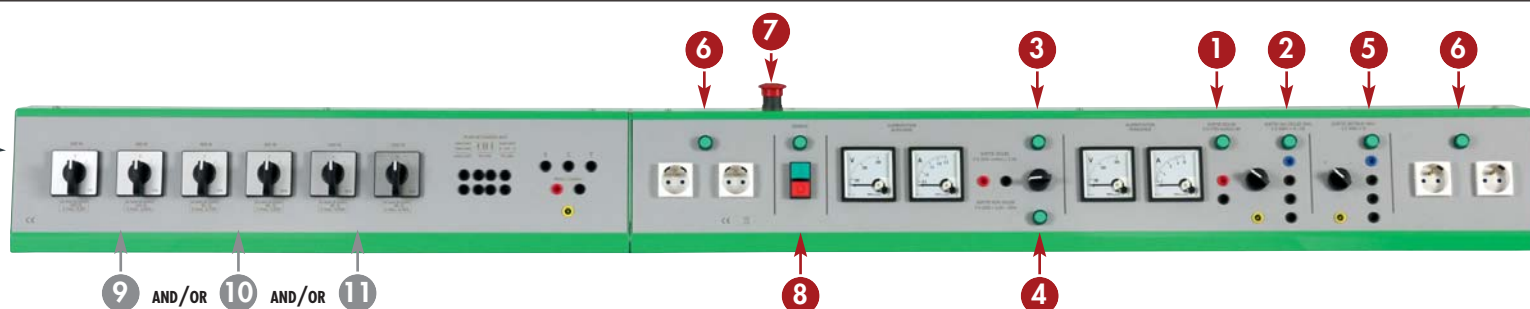


4000VA		ELECTROTECHNICAL BENCHES OF 4KVA RATING								
Ref. ●	Ref. ●	DC SUPPLY 0-270V 16A ● ●	3-PHASE 0-450V 8A ●	AUXILIARY 0-250VDC 2.5A ● ●	AUXILIARY 0-250VAC 2.5A ●	3-PHASE 3x400VAC 4 TERMINALS ●	4 POWER SOCKETS 230V 2P + E ●	RESISTIVE LOAD 4000W ●	INDUCTIVE LOAD 4000VAR ●	CAPACITIVE LOAD 4000VAR ●
BZO-40A	BZV-40A	x	x	x	x	x	x	x	x	x
BZO-40B	BZV-40B	x	x	x	x	x	x	x	x	
BZO-40C	BZV-40C	x	x	x	x	x	x	x		
BZO-40D	BZV-40D	x	x	x	x	x	x			
BXO-40A	BXV-40A		x	x	x	x	x	x	x	x
BXO-40B	BXV-40B		x	x	x	x	x	x	x	
BXO-40C	BXV-40C		x	x	x	x	x	x		
BXO-40D	BXV-40D		x	x	x	x	x			

2000VA		ELECTROTECHNICAL BENCHES OF 2KVA RATING								
Ref. ●	Ref. ●	DC SUPPLY 0-270V 8A ● ●	3-PHASE 0-430V 5A ●	AUXILIARY 0-250VDC 2,5A ● ●	AUXILIARY 0-250VAC 2,5A ●	3-PHASE 3x400VAC 4 BORNES ●	4 POWER SOCKETS 230V 2P + E ●	RESISTIVE LOAD 2000W ●	INDUCTIVE LOAD 2000VAR ●	CAPACITIVE LOAD 2000VAR ●
BZO-20A	BZV-20A	x	x	x	x	x	x	x	x	x
BZO-20B	BZV-20B	x	x	x	x	x	x	x	x	
BZO-20C	BZV-20C	x	x	x	x	x	x	x		
BZO-20D	BZV-20D	x	x	x	x	x	x			
BXO-20A	BXV-20A		x	x	x	x	x	x	x	x
BXO-20B	BXV-20B		x	x	x	x	x	x	x	
BXO-20C	BXV-20C		x	x	x	x	x	x		
BXO-20D	BXV-20D		x	x	x	x	x			

● HARD-WEARING LAMP WITHOUT MAINTENANCE ● INSULATED OUTPUT

● LOADS INSIDE THE LEFT-HAND CABINET



## 9 RESISTIVE LOAD

Consisting of a resistive wire wound on ceramic cores (protected against oxydation). The 6 switches (rapid breaking type for inductive loads) can be varied in 5% steps. The switches are placed on the bank next to the input connectors and selector links for single-phase and DC 240V, 3-phase 240VAC or 3-phase 400VAC. (A, B, C versions only).

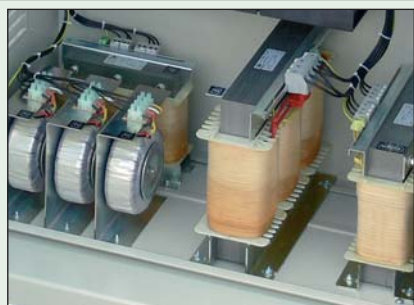
## 10 CAPACITIVE LOAD

Consisting of capacitors which can operate at 450VAC. The switches, selector links and input connectors are on the bank and easy to access. The load can be varied in 5% steps. It may be used in single-phase on DC 240V, 3-phase 240VAC or 3-phase 400VAC. (A version only)

## 11 INDUCTIVE LOAD

3 moveable cores moved by a control wheel and a endless screw, altering the inductance of the 3 windings allows regulation of power factor from 0.9 to 0.1 in single- or 3-phase. The links and input connectors are mounted on the console and easily accessible. It may be used in single-phase DC 240V, 3-phase 240V or 3-phase 400V. The coils are all protected by fuses (A and B versions only).

**FOR YOUR SAFETY THE DC OUTPUTS ARE SEPARATED FROM THE MAINS BY SAFETY ISOLATING TRANSFORMER**



## COLOR CHART

RAL 2008

RAL 6018

RAL 7016

RAL 7035

All others RAL available upon request



## 1 MAIN DC SUPPLY (BZO & BZV ONLY)

0-270V variable and insulated from the mains by insulated transformer as specified by safety standards for the use of direct currents. The whole unit is protected against overloads and short circuits. Rectification is provided by a generously over-specified Graetz bridge (ripple rate 4%). Voltmeter and ammeter displays. A magne-to-thermal circuit breaker protects this output. A contactor with a control button gives start/stop functions command, on condition that this the autotransformer output is at 0V. An indicator light shows that the unit is powered up.

## 2 VARIABLE 3-PHASE SUPPLY

Variable by autotransformer and protected against overloading and short circuits. The voltage range on offer is 0-430V between phases (450V for the 4000VA model). A thermal magnetic circuit breaker protects this output. A push button contact performs start/stop switching as long as the autotransformer is at 0 voltage. An indicator light shows that the unit is powered up

*Main supplies 1 and 2 can't work simultaneously*

## 3 DC AUXILIARY SUPPLY

0-250V variable by single phase autotransformer protected against overloading and short circuits. Voltmeter and ammeter displays. An On/Off button control. An indicator light shows that the unit is powered up. Double alternating rectification, the ripple factor varies with the loads.

## 4 SINGLE-PHASE AUXILIARY SUPPLY

0-250V variable by single phase autotransformer protected against overloading and short circuits. Voltmeter and ammeter displays. An On/Off button control.

*Main supplies 3 and 4 can't work simultaneously*

## 5 3-PHASE SUPPLY (3X400VAC FIXED)

On four terminals, protected, with switch and On/Off button control. An indicator light shows that the unit is powered up

## 6 4 POWER SOCKETS 230V (2P + E)

230V sockets (2 on either side), protected, with indicator ligts.

## 7 EMERGENCY STOP BUTTON

Key controlled in the centre of the console (can be mounted in alternative positions on request). It cuts out a single bank without affecting the others. Positive security stop.

## 8 PUSH BUTTON

Start/Stop with indicator providing start-up with "memory" function. An indicator light shows that the unit is powered up



## OPTIONS FOR ELECTROTECHNICAL BENCHES

### BENCH TOP IN 1000mm DEPTH

Dimensions 2000 x 1000 mm  
Usable space 2000 x 850 mm

ref. AUG1000-ST



### ANTI-VANDALISM COVER WITH KEY

This pull-down cover in front of the electrical equipment in the console prevents students from scribbling on or vandalising the front and its equipment. Standard dimensions: 1200mm and 2000mm.



ref. VSG-12  
for 1200mm console



ref. VSG-20  
for 2000mm console



System of lock with hook taken in the plate.  
Compatibility with a shelf, contact us.

### 360° LIGHT SIGNAL TOWERS



Beacon with 3 light indicators:  
red, yellow and green Ø60mm

ref. VOY181

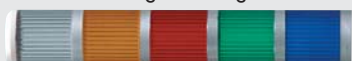
Beacon with 2 light indicators:  
red and green Ø60mm

ref. VOY121

Beacon with a red light indicator (voltage  
presence) Ø60mm

ref. VOY61

COLOURS AVAILABLE UPON REQUEST  
white - orange - red - green - blue

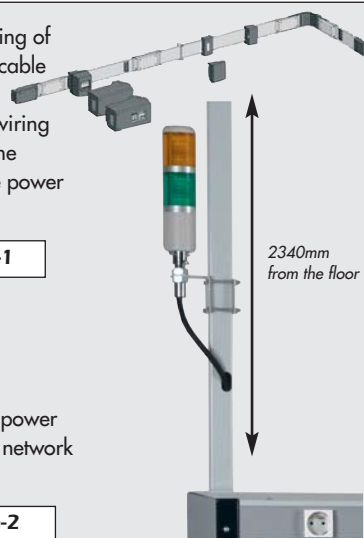


HARD-WEARING LED LAMPS

### VERTICAL CABLE RACEWAY

For the wiring of  
the power cable  
from  
the aerial wiring  
system to the  
base of the power  
supply

ref. DEG-1



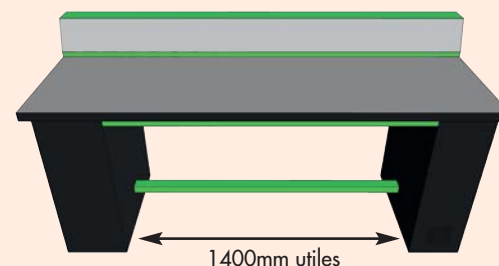
Model for power  
cable and network  
cable

ref. DEG-2

## STRENGTHS LANGLOIS OF WORKSTATIONS

### Significant release

Large space for legs  
(including RLC stations)  
means that two students can  
sit each one.



1400mm utiles

### Practical workbench

These workbenches offer  
the ideal working condi-  
tions for students.

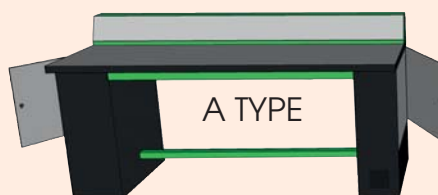


600 ou 850

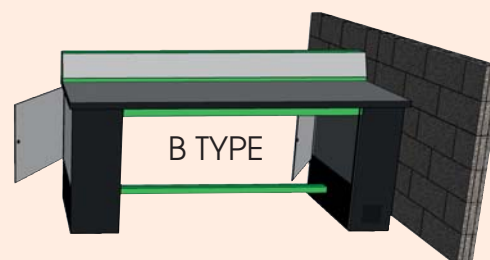
2000mm

### Door opening

The door of the load leg (maintenance-free) always opens outwards.  
The door of the power supply leg can open both inwards and outwards.



A TYPE



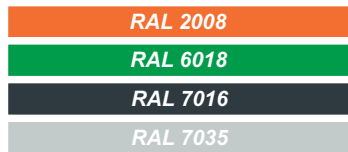
B TYPE

# QUALITY CHART

## Quality of steel and paint

All parts of the metal frame are manufactured from electrogalvanised steel sheet, which is widely used in the car manufacturing industry and makes the sheet extremely resistant to corrosion. The iron/zinc combination forms a natural cell with moisture in the air that prevents the iron from corroding, even if shearing or scratching occurs. This protection is strengthened further by two layers of furnace-baked epoxy paint, which means that it is suitable for use even in tropical or coastal areas.

### COLOR CHART



All others RAL  
available upon  
request



- 5 EPOXY PAINT LAYER 2
- 4 EPOXY PAINT LAYER 1
- 3 ELECTROGALVANIZED LAYER
- 2 UNOXYDISED STEEL
- 1 PVC BASE

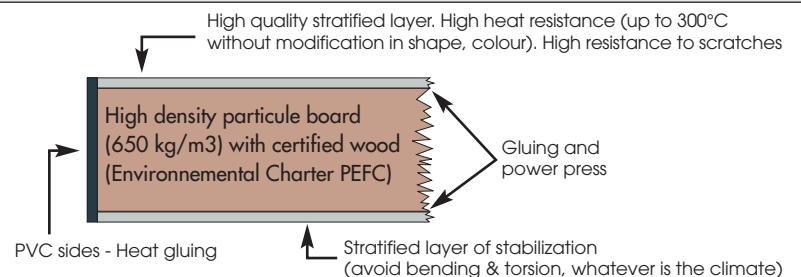
Discover our new range with  
**matt anodized aluminium structure.**  
All the aluminium parts are available  
plain or painted. (See color chart)



## Quality of top



**CHARACTERISTICS  
STRATIFIED TOP  
HIGH TEMPERATURE  
THICKNESS OF 40mm**



Uniformly  
distributed



Heat  
Resistant



Abrasion  
Resistant



Scratch  
Resistant



Easy to  
clean

**CHARACTERISTICS  
WOOD TOP  
THICKNESS OF 40mm**



Uniformly  
distributed



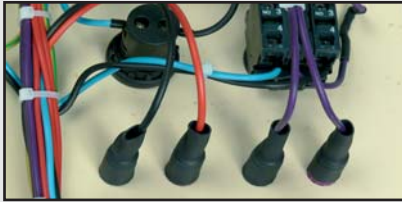
Impact  
Resistant





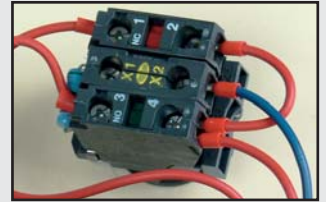
# QUALITY CHART

## Quality of electrical components



### Rear section of insulated terminals (TT earthing system)

As the standard dictates, all the electrical connections of insulated mains output, for example DC, are completely sheathed to ensure the separation of circuits. (cf: CE, Decree 88-1056 and its updates, Order of 13/12/88 and NF-C15100).



### Positive safety and activation

Following a network outage, the station will not automatically restart when the mains is restored. It will require an operator action. Manual restart required.



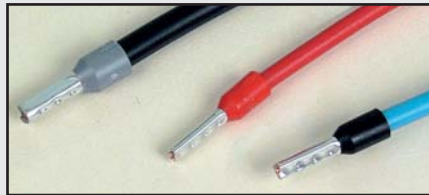
### Resistant LED indicator lights

Cannot be removed by the student (the front cap cannot be unscrewed). No risk of accidental contact for the maintenance operator



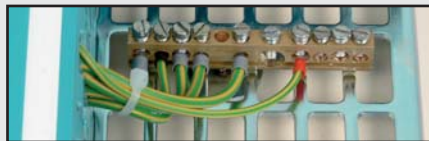
### Anti-vandalism emergency Stop push-button

The crown of the Emergency Stop push-button can turn freely. As a result, the vandal cannot any more tear off the electrical connections by turning in strength the head of the Emergency Stop. The device stays in position on the front panel without any risk of damage.



### Optimal contact with cable end sleeves

The cable end sleeves limit the risk of fire or electric shock undergoing maintenance.



### Earthing strip

All earth connections are individually wired on a standard strip. (cf: NF-C15100)



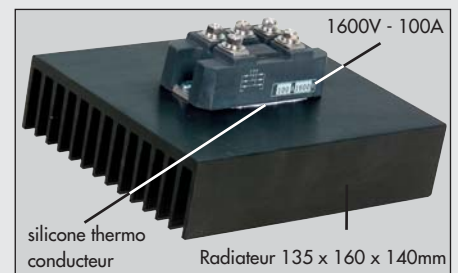
### Engraving in the part

The front face is engraved in the part. Symbols, icons, logos or customisations can be engraved on the front. The engraving in the part is impervious to abrasion and cannot be removed.



### Safety transformers

All transformers comply with the standard NFEN61558. All DC outputs are isolated from the mains as stipulated in the standard. (cf: CE, Decree 88-1056 and its updates, NF-C15100)



### The diode bridges

The radiator: in black aluminium, largely oversized to avoid using a noisy fan. The bridge is screwed onto the radiator and a silicon heat conductor improves the heat diffusion.